



19/C

SEQUENCE LISTING

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ZABRISKIE, JOHN B

<120> PEPTIDES USEFUL FOR REDUCING SYMPTOMS OF TOXIC SHOCK  
SYNDROME AND SEPTIC SHOCK

<130> 20164010US2

<140> 09/335,581

<141> 1999-06-18

<150> 08/838,413

<151> 1997-04-07

<150> PCT/US98/06663

<151> 1998-04-01

<150> 09/168,303

<151> 1998-10-07

<160> 80

<170> PatentIn Ver. 2.1

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<223> XAA may be any amino acid

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Sequence derived from staphylococcal and  
streptococcal toxins

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Tyr Gly Gly Xaa Thr Xaa Xaa Xaa Xaa Asn

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<400> 2  
Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Arg Xaa Xaa  
1 5 10 15

Leu Xaa Xaa Xaa Xaa Xaa Xaa Tyr  
20

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sequence derived from staphylococcal and  
streptococcal toxins

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Cys Met Tyr Gly Gly Val Thr Glu His Glu Gly Asn  
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sequence derived from staphylococcal and  
streptococcal toxins

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Lys Lys Asn Val Thr Val Gln Glu Leu Asp Tyr Lys Ile Arg Lys Tyr  
1 5 10 15  
  
Leu Val Asp Asn Lys Lys Leu Tyr  
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sequence derived from staphylococcal and  
streptococcal toxins

<400> 5

Cys Met Tyr Gly Gly Val Thr Glu His Glu Gly Asn Gly Cys  
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sequence derived from staphylococcal and  
streptococcal toxins

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Cys Gly Lys Lys Asn Val Thr Val Gln Glu Leu Asp Tyr Lys Ile Arg  
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Lys Tyr Leu Val Asp Asn Lys Lys Leu Tyr Gly Cys

20 25

<210> 7

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<223> Description of Artificial Sequence:Consensus  
sequence derived from staphylococcal and  
streptococcal toxins

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Cys Met Tyr Gly Gly Val Thr Glu His Glu Gly Asn Lys Lys Asn Val  
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Thr Val Gln Glu Leu Asp Tyr Lys Ile Arg Lys Tyr Leu Val Asp Asn

20 25 30

Lys Lys Leu Tyr

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<223> Description of Artificial Sequence:Consensus

sequence derived from staphylococcal and  
streptococcal toxins

<400> 8

Cys Met Tyr Gly Gly Val Thr Glu His Glu Gly Asn Lys Lys Asn Val  
1 5 10 15

Thr Val Gln Glu Leu Asp Tyr Lys Ile Arg Lys Tyr Leu Val Asp Asn  
20 25 30

Lys Lys Leu Tyr Gly Cys

35

<210> 9

<211> 12

<212> PRT

<213> Staphylococcus

<400> 9

Cys Met Tyr Gly Gly Val Thr Leu His Asp Asn Asn  
1 5 10

<210> 10

<211> 12

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<213> Staphylococcus

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Cys Met Tyr Gly Gly Val Thr Glu His Asn Gly Asn  
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<212> PRT

<213> Staphylococcus

<400> 11

Cys Met Tyr Gly Gly Ile Thr Lys His Glu Gly Asn  
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<210> 12

<211> 12

<212> PRT

<213> Staphylococcus

<400> 12

Cys Thr Tyr Gly Gly Val Thr Pro His Glu Gly Asn  
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<210> 13

<211> 12

<212> PRT

<213> Staphylococcus

<400> 13

Cys Met Tyr Gly Gly Val Thr Leu His Asp Asn Asn  
1 5 10

<210> 14

<211> 11

<212> PRT

<213> Staphylococcus

<400> 14

Cys Leu Tyr Gly Gly Ile Thr Leu Asn Ser Glu  
1 5 10

<210> 15

<211> 12

<212> PRT

<213> Streptococcus

<400> 15

Cys Ile Tyr Gly Gly Val Thr Asn His Glu Gly Asn  
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<210> 16

<211> 12  
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<213> Streptococcus

<400> 16  
Tyr Ile Tyr Gly Gly Ile Thr Pro Ala Gln Asn Asn  
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<210> 17  
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<212> PRT  
<213> Streptococcus

<400> 17  
Cys Met Tyr Gly Gly Val Thr Glu His His Arg Asn  
1 5 10

<210> 18  
<211> 24  
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<400> 18  
Lys Lys Asn Val Thr Val Gln Glu Leu Asp Leu Gln Ala Arg Arg Tyr  
1 5 10 15  
  
Leu Gln Glu Lys Tyr Asn Leu Tyr  
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<210> 19  
<211> 24  
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<213> Staphylococcus

<400> 19  
Lys Lys Lys Val Thr Ala Gln Glu Leu Asp Tyr Leu Thr Arg His Tyr  
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Leu Val Lys Asn Lys Lys Leu Tyr  
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<210> 20  
<211> 24  
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<213> Staphylococcus

<400> 20

Lys Lys Ser Val Thr Ala Gln Glu Leu Asp Ile Lys Ala Arg Asn Phe  
1 5 10 15

Leu Ile Asn Lys Lys Asn Leu Tyr  
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<210> 21

<211> 24

<212> PRT

<213> Staphylococcus

<400> 21

Lys Lys Asn Val Thr Val Gln Glu Leu Asp Ala Gln Ala Arg Arg Tyr  
1 5 10 15

Leu Gln Lys Asp Leu Lys Leu Tyr  
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<210> 22

<211> 24

<212> PRT

<213> Staphylococcus

<400> 22

Lys Lys Glu Val Thr Val Gln Glu Leu Asp Leu Gln Ala Arg His Tyr  
1 5 10 15

Leu His Gly Lys Phe Gly Leu Tyr  
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<210> 23

<211> 24

<212> PRT

<213> Staphylococcus

<400> 23

Lys Lys Asn Val Thr Leu Gln Glu Leu Asp Ile Lys Ile Arg Lys Ile  
1 5 10 15

Leu Ser Asp Lys Tyr Lys Ile Tyr  
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<210> 24  
<211> 24  
<212> PRT  
<213> Streptococcus

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Lys Lys Met Val Thr Ala Gln Glu Leu Asp Tyr Lys Val Arg Lys Tyr  
1 5 10 15

Leu Thr Asp Asn Lys Gln Leu Tyr  
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<210> 25  
<211> 24  
<212> PRT  
<213> Streptococcus

<400> 25  
Lys Asp Ile Val Thr Phe Gln Glu Ile Asp Phe Lys Ile Arg Lys Leu  
1 5 10 15

Tyr Met Asp Asn Tyr Lys Ile Tyr  
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<210> 26  
<211> 24  
<212> PRT  
<213> Streptococcus

<400> 26  
Lys Lys Gln Val Thr Val Gln Glu Leu Asp Cys Lys Thr Arg Lys Ile  
1 5 10 15

Leu Val Ser Arg Lys Asn Leu Tyr  
20

<210> 27  
<211> 24  
<212> PRT  
<213> Staphylococcus

<400> 27  
Lys Lys Gln Leu Ala Ile Ser Thr Leu Asp Phe Glu Ile Arg His Gln  
1 5 10 15

Leu Thr Gln Ile His Gly Leu Tyr

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<210> 28

<211> 12

<212> PRT

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<223> Description of Artificial Sequence:Consensus  
sequence derived from staphylococcal and  
streptococcal toxins

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<222> (1)..(2)

<223> XAA may be any amino acid or no amino acid

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<222> (10)..(11)

<223> XAA may be any amino acid

<400> 28

Xaa Xaa Tyr Gly Gly Xaa Thr Xaa Xaa Xaa Asn

1

5

10

<210> 29

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<222> (15)..(16)

<223> XAA may be any amino acid

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<222> (17)

<223> XAA may be L or Y

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<222> (18)..(22)

<223> XAA may be any amino acid

<220>

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<222> (23)

<223> XAA may be L, I or V

<400> 29

Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Arg Xaa Xaa

1

5

10

15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr

20

<210> 30

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Consensus  
sequence derived from staphylococcal and  
streptococcal toxins

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<221> UNSURE

<222> (6)

<223> XAA may be V or I; preferably V

<220>

<221> UNSURE

<222> (8)

<223> XAA may be L, E, K, P or N; preferably E or L

<220>

<221> UNSURE

<222> (10)

<223> XAA may be D, N, E, Q or H; preferably E

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Cys Met Tyr Gly Gly Xaa Thr Xaa His Xaa Gly Asn

1

5

10

<210> 31

<211> 24

<212> PRT

<213> Artificial Sequence

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<221> UNSURE  
<222> (11)  
<223> XAA may be L, Y, I, A, F or C; preferably Y

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<221> UNSURE  
<222> (3)  
<223> XAA may be N, K, S, E, M, I or Q; preferably N

<220>  
<221> UNSURE  
<222> (6)  
<223> XAA may be V, A, L, F or I; preferably V

<220>  
<221> UNSURE  
<222> (15)  
<223> XAA may be R, H, N or K; preferably K

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<222> (16)  
<223> XAA may be Y, F, I, L or Q; preferably Y

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<223> XAA may be L or Y; preferably L

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<223> XAA may be Q, L, K or E; preferably K

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<220>  
<223> Description of Artificial Sequence: Consensus  
Sequence derived from staphylococcal and  
streptococcal toxins

<400> 31  
Lys Lys Xaa Val Thr Xaa Gln Glu Leu Asp Xaa Xaa Xaa Arg Xaa Xaa  
1 5 10 15  
  
Xaa Xaa Xaa Xaa Xaa Xaa Leu Tyr  
20

<210> 32  
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<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 32  
Cys Met Tyr Gly Gly Val Thr Leu His Asp Gly Asn  
1 5 10

<210> 33  
<211> 12  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 33  
Cys Met Tyr Gly Gly Val Thr Leu His Asn Gly Asn  
1 5 10

<210> 34  
<211> 12  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 34  
Cys Met Tyr Gly Gly Val Thr Leu His Glu Gly Asn  
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<210> 35  
<211> 12  
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<223> Description of Artificial Sequence: Variants of  
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<400> 35  
Cys Met Tyr Gly Gly Val Thr Leu His Gln Gly Asn  
1 5 10

<210> 36  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 36  
Cys Met Tyr Gly Gly Val Thr Leu His His Gly Asn

1

5

10

<210> 37  
<211> 12  
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<220>  
<223> Description of Artificial Sequence: Variants of  
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<400> 37  
Cys Met Tyr Gly Gly Val Thr Glu His Asp Gly Asn  
1 5 10

<210> 38  
<211> 12  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: SEB

<400> 38  
Cys Met Tyr Gly Gly Val Thr Glu His Asn Gly Asn  
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<210> 39  
<211> 12  
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<220>  
<223> Description of Artificial Sequence: Variants of  
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<400> 39  
Cys Met Tyr Gly Gly Val Thr Glu His Gln Gly Asn  
1 5 10

<210> 40  
<211> 12  
<212> PRT  
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<223> Description of Artificial Sequence: Variants of  
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Cys Met Tyr Gly Gly Val Thr Glu His His Gly Asn  
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<210> 41

<211> 12

<212> PRT

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<223> Description of Artificial Sequence: Variants of  
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<400> 41

Cys Met Tyr Gly Gly Val Thr Lys His Asp Gly Asn  
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<210> 42

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 42

Cys Met Tyr Gly Gly Val Thr Lys His Asn Gly Asn  
1 5 10

<210> 43

<211> 12

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 43

Cys Met Tyr Gly Gly Val Thr Lys His Glu Gly Asn  
1 5 10

<210> 44  
<211> 12  
<212> PRT  
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<400> 44  
Cys Met Tyr Gly Gly Val Thr Lys His Gln Gly Asn  
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<210> 45  
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<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 45  
Cys Met Tyr Gly Gly Val Thr Lys His His Gly Asn  
1 5 10

<210> 46  
<211> 12  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 46  
Cys Met Tyr Gly Gly Val Thr Pro His Asp Gly Asn  
1 5 10

<210> 47  
<211> 12

<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Variants of staphylococcal and streptococcal toxins

<400> 47  
Cys Met Tyr Gly Gly Val Thr Pro His Asn Gly Asn  
1 5 10

<210> 48  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Variants of staphylococcal and streptococcal toxins

<400> 48  
Cys Met Tyr Gly Gly Val Thr Pro His Glu Gly Asn  
1 5 10

<210> 49  
<211> 12  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Variants of staphylococcal and streptococcal toxins

<400> 49  
Cys Met Tyr Gly Gly Val Thr Pro His Gln Gly Asn  
1 5 10

<210> 50  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Variants of staphylococcal and streptococcal toxins

<400> 50

Cys Met Tyr Gly Gly Val Thr Pro His His Gly Asn  
1 5 10

<210> 51

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 51

Cys Met Tyr Gly Gly Val Thr Asn His Asp Gly Asn  
1 5 10

<210> 52

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 52

Cys Met Tyr Gly Gly Val Thr Asn His Asn Gly Asn  
1 5 10

<210> 53

<211> 12

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 53

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<210> 54  
<211> 12  
<212> PRT  
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<223> Description of Artificial Sequence: Variants of staphylococcal and streptococcal toxins

<400> 54  
Cys Met Tyr Gly Gly Val Thr Asn His Gln Gly Asn  
1 5 10

<210> 55  
<211> 12  
<212> PRT  
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<223> Description of Artificial Sequence: Variants of staphylococcal and streptococcal toxins

<400> 55  
Cys Met Tyr Gly Gly Val Thr Asn His His Gly Asn  
1 5 10

<210> 56  
<211> 12  
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<223> Description of Artificial Sequence: Variants of staphylococcal and streptococcal toxins

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Cys Met Tyr Gly Gly Ile Thr Leu His Asp Gly Asn  
1 5 10

<210> 57  
<211> 12  
<212> PRT  
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<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 57

Cys Met Tyr Gly Gly Ile Thr Leu His Asn Gly Asn  
1               5                           10

<210> 58

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 58

Cys Met Tyr Gly Gly Ile Thr Leu His Glu Gly Asn  
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<210> 59

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 59

Cys Met Tyr Gly Gly Ile Thr Leu His Gln Gly Asn  
1               5                           10

<210> 60

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 60

Cys Met Tyr Gly Gly Ile Thr Leu His His Gly Asn  
1               5                           10

<210> 61  
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<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 61  
Cys Met Tyr Gly Gly Ile Thr Glu His Asp Gly Asn  
1 5 10

<210> 62  
<211> 12  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 62  
Cys Met Tyr Gly Gly Ile Thr Glu His Asn Gly Asn  
1 5 10

<210> 63  
<211> 12  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 63  
Cys Met Tyr Gly Gly Ile Thr Glu His Glu Gly Asn  
1 5 10

<210> 64  
<211> 12  
<212> PRT  
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<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 64

Cys Met Tyr Gly Gly Ile Thr Glu His Gln Gly Asn  
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<210> 65

<211> 12

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 65

Cys Met Tyr Gly Gly Ile Thr Glu His His Gly Asn  
1 5 10

<210> 66

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 66

Cys Met Tyr Gly Gly Ile Thr Lys His Asp Gly Asn  
1 5 10

<210> 67

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 67

Cys Met Tyr Gly Gly Ile Thr Lys His Asn Gly Asn  
1 5 10

<210> 68  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: SEC

<400> 68  
Cys Met Tyr Gly Gly Ile Thr Lys His Glu Gly Asn  
1 5 10

<210> 69  
<211> 12  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 69  
Cys Met Tyr Gly Gly Ile Thr Lys His Gly Gly Asn  
1 5 10

<210> 70  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 70  
Cys Met Tyr Gly Gly Ile Thr Lys His His Gly Asn  
1 5 10

<210> 71  
<211> 12  
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 71

Cys Met Tyr Gly Gly Ile Thr Pro His Asp Gly Asn  
1                   5                   10

<210> 72

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 72

Cys Met Tyr Gly Gly Ile Thr Pro His Asn Gly Asn  
1                   5                   10

<210> 73

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Variants of  
staphylococcal and streptococcal toxins

<400> 73

Cys Met Tyr Gly Gly Ile Thr Pro His Glu Gly Asn  
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<210> 74

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staphylococcal and streptococcal toxins

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Cys Met Tyr Gly Gly Ile Thr Pro His Gln Gly Asn  
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staphylococcal and streptococcal toxins

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staphylococcal and streptococcal toxins

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<400> 80  
Cys Met Tyr Gly Gly Ile Thr Asn His His Gly Asn  
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